The opinion in support of the decision being entered today was <u>not</u> written for publication in a law journal and is <u>not</u> binding precedent of the Board.

<div align="right">Paper No. 20</div>

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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<u>Ex parte</u> CHARLES ANDREW MCLAUGHLIN
and ALONGKORN KITAMORN

———————

Appeal No. 2000-1513
Application No. 08/829,088

———————

ON BRIEF

———————

Before KRASS, JERRY SMITH and RUGGIERO, <u>Administrative Patent Judges</u>.

KRASS, <u>Administrative Patent Judge</u>.

<u>DECISION ON APPEAL</u>

This is a decision on appeal from the final rejection of claims 1-20, 23-25 and 27-30.

The invention is directed to a method of isolating a fault condition on a PCI (peripheral component interconnect) bus. The invention is succinctly described by independent claim 1, reproduced as follows:

<div align="center">-1-</div>

1. A method for isolating a fault condition on a bus of a computer system, the computer system including an input/output (I/O) subsystem formed by a plurality of I/O devices communicating via the bus, the method comprising the steps of:

(a) categorizing, in a recursive manner, the I/O subsystem;

(b) forming an error log based on the categorizing; and

(c) isolating a source of an error condition within the I/O subsystem.

The examiner relies on the following reference:

Hausauer et al. [Hausauer]   5,790,870   Aug. 4, 1998
                                                  (filed Dec. 15, 1995)

Claims 1-20, 23-25 and 27-30 stand rejected under 35 U.S.C. 102(e) as anticipated by Hausauer.

Reference is made to the brief and answer for the respective positions of appellants and the examiner.

<u>OPINION</u>

At the outset, we note that the claims reproduced in the appendix to the brief comprise a claim 23, dependent on a

canceled claim 21, and a claim 27, dependent on a canceled claim 26.

We also note that, in accordance with appellants' grouping of the claims at page 7 of the brief, all claims will stand or fall together. Accordingly, we limit our discussion to independent claim 1.

It is the examiner's position that Hausauer discloses a method for isolating a fault condition on a bus of a computer system, including an I/O subsystem formed by a plurality of I/O devices communicating via a bus, referring to Figure 1 and column 4, lines 30-62 of the reference. The examiner also indicates that the claimed step of "categorizing, in a recursive manner, the I/O subsystem" is disclosed by Hausauer at Figure 4 and column 9, lines 17-55. Finally, the examiner contends that "isolating a source of an error condition within the I/O subsystem" may be found at column 7, line 46-column 8, line 6, of Hausauer.

An anticipatory reference is one which describes all of the elements of the claimed invention so as to have placed a person of ordinary skill in the art in possession thereof. In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

We will not sustain the rejection of the claims under 35 U.S.C. 102(e) because the examiner has not convinced us that Hausauer is an anticipatory reference with regard to the instant claimed subject matter.

We have reviewed the applied reference, especially the portions referenced by the examiner, and we do not find therein, a disclosure of the claimed "categorizing, in a recursive manner, the I/O subsystem" or "forming an error log based on the categorizing."

These terms are clearly explained at pages 7-8 of the instant specification, in connection with Figure 4, which depicts "categorizing, in a recursive manner..." We must interpret the term, "categorizing, in a recursive manner" to include following the path of the error condition. As explained at page 6 of the specification, "categorization" follows a specific order in a process of elimination manner to take into consideration all of the possibilities for errors that exist for data propagation within the hierarchical tree structure of the I/O subsystem.

Hausauer, on the other hand, as explained by appellants, teaches unifying error signals before presenting the error signals to the processor. While the reference teaches that a processor reads interrupt status registers to locate error groups

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that generated an interrupt with the processor polling all the devices that might have caused the type of error, the reference does not disclose any recursive categorization of an I/O subsystem, formation of an error log based on the recursive categorization, and isolation of an error source within the I/O subsystem.

Apparently recognizing that the reference portions cited do not, in fact, teach the claimed "categorization, in a recursive manner," the examiner contends, in the response section of the answer, that appellants do not "functionally claim how the system categorize the I/O subsystem recursively" [answer-page 5]. We disagree. The claims clearly recite "categorizing, in a recursive manner." Since the examiner has not indicated an alternative interpretation of this term, the interpretation must be the meaning given by the instant specification, as recited at page 6 thereof.

Furthermore, as to the limitation, "in a recursive manner," the examiner says that it "recited in at least to the independent claims that were merely hinted as possible modifications to the claimed invention and no circuit diagrams or suggestion were provided to make modifications as hinted in the language of the claims" [answer-pages 5-6]. The examiner's rationale is not

easily understood. If the examiner is suggesting that there is
something inadequate about the description or disclosure of the
invention, that may constitute a rejection under 35 U.S.C. 112,
but it has no place within 35 U.S.C. 102(e). The examiner must
treat the limitation, "in a recursive manner" and may not ignore
it as he apparently has done in the instant case.

The simple language of the claim, "categorization, in a
recursive manner," appears to be very broad in nature and we
question whether the language at column 9, lines 53-56, of
Hausauer might meet that language. That is, if the reading of
the status register does not tell on which bus the error
occurred, the software searches the devices on both PCI buses to
locate the source of the error. If devices on both PCI buses are
searched, this would appear to indicate a "recursive" manner of
"categorizing" since the errors are categorized and going back to
search for errors would appear to be a "recursive" manner.
However, appellants want the term, "categorizing, in a recursive
manner" to include following the path of the error condition and
following a specific order in a process of elimination manner to
take into consideration all of the possibilities for errors that
exist for data propagation within the hierarchical tree structure
of the I/O subsystem. Although not specifically limited in the

claims, we shall so interpret the claim language to give meaning

to the term, "categorizing, in a recursive manner."

In any event, even if we interpreted the language, "categorizing,

in a recursive manner," very broadly so that the disclosure of

Hausauer at column 9, met such language, we simply do not find,

in Hausauer, the claim limitation of "forming an error log based

on the categorizing." The examiner has simply ignored this claim

limitation in the discussion of the rejection of claim 1 at page

2 of the answer. In response to appellants' arguments, the

examiner merely indicates, at page 6 of the answer, that Hausauer

"disclose the formation of error log based on the categorization

(i.e. error groups) (see col. 9, lines 19-35)." We have reviewed

this portion of Hausauer and find nothing therein even suggestive

of the claimed error log formation based on the categorizing.

Moreover, the examiner has not elaborated on how he is

interpreting this portion of Hausauer to result in the claimed

error log formation based on categorizing. Accordingly, the

examiner's rejection and explanation thereof, on its face, fails

to present a convincing case of anticipation within the meaning

of 35 U.S.C. 102. This lack of explanation is especially

deficient in view of appellants' specific argument, left

unanswered by the examiner, that Hausauer would have no need for

an error log prior to isolation of an error source "given the use
of direct correction of an error source upon its identification
during each error group checking in Hausauer" [brief-page 10].
Since each and every claim limitation, recited in independent
claim 1, has not been shown by the examiner as being taught or
suggested in Hausauer, the rejection of claims 1-20, 23-25 and
27-30 under 35 U.S.C. 102(e) is not sustained.

The examiner's decision is reversed.

REVERSED

ERROL A. KRASS   )
Administrative Patent Judge)
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JERRY SMITH   ) BOARD OF PATENT
Administrative Patent Judge)   APPEALS AND
)   INTERFERENCES
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EK/RWK

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